

## DUAL-MODE CHEMICAL-ELECTRIC THRUSTERS FOR SPACECRAFT

### ABSTRACT

Spacecraft thrusters capable of dual-mode operation, and a method of applying propulsion to a spacecraft using a dual-mode thruster are provided. In one embodiment, the thrusters of the current invention can operate as a chemical motor to provide high thrust and low propellant exhaust velocity to achieve fast maneuverability, or as an electric propulsion thruster to provide low thrust and high exhaust velocity to perform maneuvers with a minimal amount of propellant.